

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE (Case No. 98,430)

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rt Unit: 1645

Commissioner for Patents **Box: Missing Parts** Washington, D.C. 20231

Sir:

TRANSMITTAL LETTER

In regard to the above identified application:

- 1. We are transmitting herewith the attached:
 - a. Information Disclosure Statement;
 - b. Form PTO-1449;
 - b. Copies of twenty-five (25) cited references;
 - c. Return receipt postcard.
- With respect to additional fees, no additional fee is required. 2.
- Please charge any additional fees or credit overpayment to Deposit Account No.13-2490. A duplicate copy of this sheet is enclosed.
- CERTIFICATE OF MAILING UNDER 37 CFR § 1.8: The undersigned also hereby certifies that this Transmittal Letter and the paper, as described in paragraph 1 hereinabove, are being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, Washington, D.C. 20231 on this 29th day of June, 2001.

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THE UNITED STATES PATENT AND TRADEMARK OFFICE (Case No. 98,430)

In re A	Application of:)	
	Brian S. Hilbush et al.))	Confirmation No. 9069
Serial	No.: 09/775,217))	Group Art Unit: 1645
Filed:	February 1, 2001)	•
For:	Simplified Method for Indexing and)	
	Determining the Relative Concentration)	
	Of Expressed Messenger RNAs)	

INFORMATION DISCLOSURE STATEMENT

Commissioner of Patents Washington, D.C. 20231

Dear Sir:

This prior art statement is filed under 37 C.F.R. 1.97-1.98 in compliance with the duty of disclosure set forth in 37 C.F.R. 1.56

In the judgment of the undersigned, the references listed on the attached Form PTO-1449 may be material to the Examiner's consideration of the presently pending claims. However, the references have not been reviewed in sufficient detail to make any other representation and, in particular, no representation is intended as to the relative relevance between references, whether cited in this statement or prior statements. This statement is not a representation that the listed references have effective dates early enough to be "prior art" within the meaning of 35 U.S.C. 102.

Should the Examiner desire a translation of any non-English language document listed below,

Applicant will provide an English translation upon request.

- 1. Patent No. 5,459,037, granted October 17, 1995
- 2. Patent No. 5,658,736, granted August 19, 1997

- 3. Patent No. 5,807,680, granted September 15, 1998
- 4. Patent No. 5,932,451, granted August 3, 1999
- 5. WO 95/13369, published May 18, 1995
- 6. EP 0 735 144 A1, published October 2, 1996
- 7. Adams, Mark D. et al., "Sequence identification of 2,375 human brain genes," Nature, Vol. 355, pgs. 632-634 (13 February 1992).
- 8. Adams, Mark D. et al., "Complementary DNA Sequencing: Expressed Sequence Tags and Human Genome Project," Science, Vol. 252, pgs. 1651-1656 (21 June 1991).
- 9. de Noronha, Carlos et al., "Amplimers with 3'-Terminal Phosphorothioate Linkages Resist Degradation by Vent Polymerase and Reduce Taq Polymerase Mispriming," PCR Methods and Applications, pgs. 131-136 (1992).
- 10. Ju, Jingyue et al., "Design and Synthesis of Fluorescence Energy Transfer Dye-Labeled Primers and Their Application for DNA Sequencing and Analysis," Analytical Biochemistry, 231:131-140 (1995).
- 11. Liang, Peng et al., "Distribution and cloning of euraryotic mRNAs by means of differential display: refinements and optimization," Nucleic Acids Research, Vol. 23, pgs. 3269-3275 (1993).
- 12. Liang, Peng et al., "Differential Display of Eukaryotic Messenger RNA by Means of the Polymerase Chain Reaction," Science, Vol. 257, pgs. 967-971, (14 August 1992).
- 13. Nadeau, Joseph et al., "Multilocus markers for mouse genome analysis: PCR amplification based on single primers of arbitrary nucleotide sequence," Mammalian Genome, 3:55-64 (1992).
- 14. Orita, Masata et al., "Detection of polymorphisms of human DNA by gel electrophoresis as single-strand conformation polymorphisms," Proc. Natl. Acad. Sci. USA, Vol. 86, pgs. 2766-2770 (April 1989).
- 15. Orita, Masato et al., "Rapid and Sensitive Detection of Point Mutations and DNA polymorphisms Using the Polymerase Chain Reaction," Genomics, 5:874-879 (1989).
- 16. Ott, Johann et al., "Protection of Oligonucleotide Primers against Degradation by DNA Polymerase I," Biochemistry, 26:8237-8241 (1987).

- 17. Schreiber, Georg et al., "Selectibe protection of in vitro synthesized cDNA against nucleases by incorporation of phosphorothioate-analogues," Nucleic Acids Research, Vol. 13, pgs. 7663-7672 (1985).
- 18. Sutcliffe, J. et al., "TOGA: An automated parsing technology for analyzing expression of nearly all genes," PNAS, Vol. 97, pgs. 1976-1981 (February 29, 2000).
- 19. Uhlmann, Eugen et al., "Studies on the Mechanism of Stabilization of Partially Phosphorothioated Oligonucleotides Against Nucleolytic Degradation," Antisense & Nucleic Acid Drug Dev., 7:345-350 (1997).
- 20. Welsh, John et al. "Arbitrarily primed PCR fingerprinting of RNA," Nucleic Acid Res., Vol 20, 4965-4970 (1992).
- 21. Williams, John et al., "DNA polymorphisms amplified by arbitrary primers are useful as genetic markers," Nucleic Acids Res., Vol. 18, pgs. 6531-6535 (1990).
- 22. Woodward, Scott et al., "Random sequence oligonucleotide primers detect polymorphic DNA products which segregate in inbred strains of mice," Mammalian Genome, 3:73-78 (1992).
- 23. Sambrook, "Enzymes Unsed in Colecular Cloning," Molecular Cloning: A Laboratory Manual, Vol. 1, pgs. 5.01-5.95.
- 24. Sambrook, "Extraction, Purification, and Analysis of Messenger RNA from Eukaryotic Cells," Molecular Cloning: A Laboratory Manual, Vol. 1, pgs. 7.01-7.87.
- 25. Sambrook, "Construction and Analysis of cDNA Libraries" Molecular Cloning: A Laboratory Manual, Vol. 2, pgs. 8.01-8.86.

In accordance with MPEP Sections 609 and 707.05(b), it is requested the document cited (including any cited in applicant's specification which is not repeated on the attached Form PTO-1449) be given thorough consideration and that it be cited of record in the prosecution history of the present application by initialing on Form PTO-1449. Such initialing is requested even if the Examiner does not consider a cited document to be sufficiently pertinent to use in a rejection, or otherwise does not

consider it to be prior art for any reason, or even if the Examiner does not believe that the guidelines for citation have been fully complied with. This is requested so that each document becomes listed on the face of the patent issuing on the present application

Respectfully submitted
McDONNELL BOEHNEN
HULBERT & BERGHOFF

Dated: June 29, 2001

By:

Roger P. Zimmerma

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FORM PTO-1449 (Rev. 2-32)	U.S. Department of Commerce Patent and Trademark Office	Atty. Docket No. 98,430	Serial No. 09/775,22
INFORMATION STATEMENT		0 6 2001 TER 1600	
JUL 0 5 700 E (Use several s	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Applicant:	200 1 1600 /2900
TENT A TO A OF MEET		Brian S. Hilbush et al	•
		Filing Date:	Group:
		February 1, 2001	1645

U.S. PATENT DOCUMENTS

Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date if Appropriate
	1.	5,459,037	10/17/95	Sutcliffe et al.			
	2.	5,658,736	8/19/97	Wong			
	3.	5,807,680	9/15/98	Sutcliffe et al.			
	4.	5,932,451	8/3/99	Wang et al.			

ECDEICH DATENT DOCUMENTS

	Document Number Date	Date	Country	Class	Subclass	Translation	
		- 400				Yes	No
5.	WO 95/13369	5/18/95	PCT				
6.	EP 0 735 144 A1	10/2/96	EPO				

	OTHER DOCUMENTS (Including Author, Title, I	Date, Pertinent Pages, Etc).		
7.	Adams, Mark D. et al., "Sequence identification of 2,375 human brain genes," Nature, Vol. 355, pgs. 632-634 (13 February 1992).			
8.	Adams, Mark D. et al., "Complementary DNA Sequencing: Express Science, Vol. 252, pgs. 1651-1656 (21 June 1991).	ed Sequence Tags and Human Genome Project,"		
9.	de Noronha, Carlos et al., "Amplimers with 3'-Terminal Phosphorot and Reduce Taq Polymerase Mispriming," PCR Methods and Appli	hioate Linkages Resist Degradation by Vent Polymerase ications, pgs. 131-136 (1992).		
10.	Ju, Jingyue et al., "Design and Synthesis of Fluorescence Energy Transfer Dye-Labeled Primers and Their Application for DNA Sequencing and Analysis," Analytical Biochemistry, 231:131-140 (1995).			
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FORM PTO-1449 (Rev. 2-32)	U.S. Department of Commerce Patent and Trademark Office NECKMATION DISCLOSURE STATEMENT BY APPLICANT		Atty. Docket No. 98,430	No. JUT 0 6 200: No. JUT 0 6 200: Se CBIER 1600	RECEIV
	(Use several sheets i	f necessary)	Applicant: Brian S. Hilbush et al. Filing Date: February 1, 2001	00/2900 Group:	B

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc). 11. Liang, Peng et al., "Distribution and cloning of euraryotic mRNAs by means of differential display: refinements and optimization," Nucleic Acids Research, Vol. 23, pgs. 3269-3275 (1993). Liang, Peng et al., "Differential Display of Eukaryotic Messenger RNA by Means of the Polymerase Chain Reaction," Science, 12. Vol. 257, pgs. 967-971, (14 August 1992). 13. Nadeau, Joseph et al., "Multilocus markers for mouse genome analysis: PCR amplification based on single primers of arbitrary nucleotide sequence," Mammalian Genome, 3:55-64 (1992). 14. Orita, Masata et al., "Detection of polymorphisms of human DNA by gel electrophoresis as single-strand conformation polymorphisms," Proc. Natl. Acad. Sci. USA, Vol. 86, pgs. 2766-2770 (April 1989). Orita, Masato et al., "Rapid and Sensitive Detection of Point Mutations and DNA polymorphisms Using the Polymerase Chain 15. Reaction," Genomics, 5:874-879 (1989). 16. Ott, Johann et al., "Protection of Oligonucleotide Primers against Degradation by DNA Polymerase I," Biochemistry, 26:8237-8241 (1987). 17. Schreiber, Georg et al., "Selectibe protection of in vitro synthesized cDNA against nucleases by incorporation of phosphorothioate-analogues," Nucleic Acids Research, Vol. 13, pgs. 7663-7672 (1985). 18. Sutcliffe, J. et al., "TOGA: An automated parsing technology for analyzing expression of nearly all genes," PNAS, Vol. 97, pgs. 1976-1981 (February 29, 2000). 19. Uhlmann, Eugen et al., "Studies on the Mechanism of Stabilization of Partially Phosphorothioated Oligonucleotidces Against Nucleolytic Degradation," Antisense & Nucleic Acid Drug Dev., 7:345-350 (1997). Welsh, John et al. "Arbitrarily primed PCR fingerprinting of RNA," Nucleic Acid Res., Vol 20, 4965-4970 (1992). 20. 21. Williams, John et al., "DNA polymorphisms amplified by arbitrary primers are useful as genetic markers," Nucleic Acids Res., Vol. 18, pgs. 6531-6535 (1990). 22. Woodward, Scott et al., "Random sequence oligonucleotide primers detect polymorphic DNA products which segregate in inbred strains of mice," Mammalian Genome, 3:73-78 (1992). 23. Sambrook, "Enzymes Unsed in Colecular Cloning," Molecular Cloning: A Laboratory Manual, Vol. 1, pgs. 5.01-5.95. 24. Sambrook, "Extraction, Purification, and Analysis of Messenger RNA from Eukaryotic Cells," Molecular Cloning: A Laboratory Manual, Vol. 1, pgs. 7.01-7.87. Sambrook, "Construction and Analysis of cDNA Libraries" Molecular Cloning: A Laboratory Manual, Vol. 2, pgs. 8.01-8.86. 25. **EXAMINER** DATE CONSIDERED

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